

Geology Section, Geotechnical Engineering and Sciences Branch Engineering Division

The Geologic Support Section of Omaha District's Engineering Division provides engineering geologic consulting services for all mission areas the district services. Our staff of geologic professionals and fully-equipped drill crews are the service providers of all types of engineering geology and groundwater investigations, studies, and designs. Our staff has worked in a wide variety of geologic environments around the globe.

Mission

The mission of the Geology Support Section is to provide engineering geology and geologic consulting services to the Omaha District and the customers it serves, using sound technical judgment and incorporating the most appropriate technologies in a timely and cost-effective manner.

In-House Capabilities

Hazardous and Toxic Waste Site Investigations

- o Sampling program design and assistance
- o Monitoring well design and installation
- o Soil, groundwater, and soil vapor sampling
- o Direct push soil and groundwater sampling
- o Negotiations with regulatory agencies
- o Groundwater modeling
- o Aquifer testing
- o Well abandonment

Foundation Investigations

- o Soil and rock drilling and sampling
- o Installation of inclinometers, piezometers, etc.
- Geologic mapping

Groundwater and Soil Remediation Designs

- o Evaluations for monitored natural attenuation
- o Extraction and injection wells
- o Sparging, venting, and in-situ bio-remediation systems
- o Groundwater barriers and reactive walls

Geophysical Surveys

- o Ground-penetrating radar
- o Shallow conductivity (EM-31)
- o EM-61 surveys for conductive metals

Design of Tunnels and Shafts in Rock

Groundwater Control and Dewatering



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Water Supply Systems

- Well head protection plans
- Well design and O&M plans
- o Well performance and aquifer testing
- o Well maintenance and rehabilitation
- o Down-hole camera inspections
- Groundwater resource evaluations

Drilling Capabilities

Drill crews are equipped with truck-mounted and all-terrain rigs for auger and mud or air-rotary drilling, air-driven casing, rock coring, and direct push sampling for soil, water, or vapor. We use hollow stem auger diameters up to 12 inches inside diameter, casing diameters to eight inches and rock core diameters up to six inches.





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